**AP Biology Molecular Biology (Chapter 12 Outline)**

*Vocabulary*: Define in your own words

Anticodon-

Codon-

DNA polymerase-

Elongation-

Histone-

Nucleosome-

Polyribosome-

Promoter-

Proteomics-

Ribozyme-

RNA polymerase-

Semiconservative replication-

Telomere-

Transcription-

Translation-

Translocation-

Triplet code-

Wobble Hypothesis-

**Briefly describe the following concepts:**

Explain the roles of the different types of RNA (tRNA, mRNA, rRNA) in gene expression. (6 pts)

Describe the Watson and Crick model of DNA structure. (2 pts)

Describe the properties a substance must posses in order to serve as genetic material. (2 pts)

How did historical researchers demonstrate how DNA was genetic material? (2 pts)

Explain how Griffith's experiment on mice demonstrated the principles of bacteria transformation. (2 pts)

Explain the central dogma of molecular biology. (2 pts)

Explain the three major steps in DNA replication. (3 pts)

Compare AND contrast DNA replication in prokaryotes and eukaryotes. (2 pts)

Describe the three major modifications that occur during mRNA processing. (3 pts)

Distinguish between the introns and exons of a gene. (2 pts)

Describe the three stages of translation and the events that occur at each stage. (6 pts)

***ABOUT THE READING:***

Write three things that you learned about the Molecular Biology*:*

*Make sure to write a full sentence.*

*Example: I learned that colorblindness is a X chromosome linked genetic disorder that affects more males than females.*

*1.*

*2.*

*3.*